REVIEWS OF BOOKS

GENETICS

Harrison, G. A. (Editor). *Genetical Variation in Human Populations: Symposia of the Society for the Study of Human Biology*, Volume IV. Oxford, 1962. Pergamon. Pp. viii + 115. Price 35s.

THE SOCIETY FOR the Study of Human Biology has been holding annually symposia which are of considerable importance to anthropology and eugenics. In 1958 there was the discussion on the *Scope of Physical Anthropology and its Place in Academic Studies*, in 1959 one on *Natural Selection in Human Populations* and in 1961 one on *Human Growth*. The present volume follows previous information into more detail because a number of characters which distinguish human populations can now be determined with great accuracy. Some of these are quite simple from the genetical point of view, blood groups, abnormal haemoglobins, deficiency of certain erythrocyte enzymes, haptoglobins, transferrins, and also some urinary amino-acids. There are two chapters on more complicated human characters of a polygenic nature, fingerprints and pigmentation of the skin. Each one of these is discussed by an expert of international reputation.

A. E. Mourant rightly states that blood group studies are probably at present more valuable as a source of genetical information about human populations than studies of all the other factors combined. It is also in connection with the blood groups that knowledge is now accumulating about their association with the incidence of disease. However, perhaps the most conclusive evidence of the selective value of a simple Mendelian character has been brought for the protection by the sickle-cell trait against malignant malaria. This point is discussed very fully by A. C. Allison and his chapter is beautifully illustrated with distribution maps of human haemoglobins, thalassaemia and glucose-6-phosphate dehydrogenase deficiency.

N. A. Barnicot summarizes the present information on the world distribution of haptoglobins and transferrins and the reader may well be astonished at the great advances in these investigations in comparatively few years. S. M. Gartler's article on variation in urinary excretion of β-amino isobutyric acid opens a completely new field and may well set a pattern for other urinary amino-acids. Fingerprints are discussed by S. B. Holt and skin pigmentation by the Editor, G. Ainsworth Harrison. Of the two polygenic characters, the first is, as far as we know at present, quite unrelated to environmental influences, whereas the second is of course very closely associated with the habitat of a population.

To anyone interested in the rapidly developing field of genetical variations of man this volume gives an opportunity to bring himself up to date. In view of the excellent illustrations and clear expositions, reading this book will at the same time be an opportunity to enjoy oneself.

H. LEHMANN

British Medical Bulletin. January 1962. **18**, 1. Pp. 1-88. Price 20s. Genetics of Micro-organisms.

WE ARE ALL familiar now with the three issues of the *British Medical Bulletin* which appear each year with excellent review articles by workers in specialized fields. In this issue the usual high standard is well maintained.

The foreword by Sir Macfarlane Burnet is a masterly review of the results of microbial genetics on theoretical biology, chemotherapy and medical research. In conclusion Sir Macfarlane states: "Microbial genetics requires no external justification for its study but, if it is to develop to full potential significance for medicine, it will be by laying down the ideas and methodology for a fruitful attack on the dynamics and homeostasis of those populations of controlled but semi-autonomous cells that make up the human body."

The *Bulletin* consists of contributions by seventeen workers, all of whom are intimately concerned with different aspects of this general topic.

The reader is introduced to the structure chemistry of D.N.A. and R.N.A. and special